

# 9200 Employed at Douglas, \$1 Million Weekly Payroll

When the first Douglas F4D Skyray went into service with the US Fleet a year ago, it started regular deliveries of the supersonic interceptor to operational squadrons of the Pacific and Atlantic fleets.

Deliveries continue this year from the Torrance location of Douglas Aircraft's El Segundo division where the deadly, high altitude interceptor is produced for the Navy.

An integral part of the El Segundo division under the direction of T. E. Springer, vice president-general manager, and R. A. Myers, works manager, Location B-6 at Torrance has J. D. Thomas as factory superintendent.

### Potent Weapon

One of the fastest carrier-based aircraft ever built, the Skyray is designed to sweep the skies of enemy bombers. Its light weight, and extremely high rate of climb, make it a potent weapon for all-weather operations.

Although basically designed for interception missions with guns and rockets, the F4D can be used effectively as

a general purpose fighter. It also is capable of performing ground support missions using bombs and missiles.

As a result of its performance during flight evaluation, the Skyray flew two record runs. It still holds official world speed records for the three and 100 kilometer courses. Over the three kilometer it averaged 752.9 mph.

It recaptured the 100 kilometer record with an average speed of 728.11 mph. An unofficial time-to-climb record was established in 1955 when, from a standing start, it reached 10,000 feet in 56 seconds, cutting 15 seconds from the former record.

Marine All-Weather Fighter Squadron 115 of the Third Marine Aircraft Wing of the El Toro Marine Corps Air Station was the first squadron to receive the bat-wing Skyray.

Recently, the self-styled "Desert Rats," led by Squadron Commander Lt. Col. Ralph H. "Smoke" Spanjar, flew a total of 1028.8 hours during 22 days of flying. This nearly tripled the record of a Navy "Skyray" squadron which surpassed

the 300 hour mark.

### Safety Record

The Marines hit their stride with an amazing safety record, as the entire accomplishment was without incident; no accidents, not even a blown-out tire.

While the F4D is in full production at Torrance, work on other aircraft has been transferred to the facility.

Acceleration of the DC-7 and DC-8 programs at the company's Santa Monica division made it desirable to transfer work on the A4D Skyhawk aft-section assemblies from Culver City to Torrance. The movement was accomplished in progressive steps, with work underway at each location, so as not to hinder production of the Skyhawk.

Approximately 500 employees are engaged in the new work which consists of fabricating all parts for the aft section. Although it has not been initiated as yet, plans call for the assemblies to be delivered to El Segundo as complete sections containing electrical, mechanical, and hydraulic installations. Following operational checks, each assembly will be a complete unit ready to be bolted to the forward section at El Segundo.

### Expansion Complete

The ten percent expansion of facilities, which was started a year ago, is now complete. The largest new installation is the modern plastics building. Approximately 500 employees are engaged in plastics' manufacture in the new structure. Pressurized throughout to remove contaminating dust, the new structure was necessary because of the extensive use of plastics in today's high speed Navy aircraft. It was designed not only for present production needs, but for any foreseeable future requirements in the plastics field.

Constructed of new, insulated steel paneled walls, the building has 71,000 square feet of covered floor space, including a balcony. This upstairs area provides space for methods development and materials and process engineering groups, tool storage, tool repair, and production of conduits and defrosting ducts.

### Engineering Department

An engineering department has been established at Torrance to give maximum engineering support to the F4D Skyray manufacturing program.

Effective Feb. 8, 1957, Wendell C. Wilkins was named department supervisor. The new department occupies 11,000 square feet of floor space on the third floor of the administration building.

In a later move, the F4D service engineering section was transferred to increase the self-sufficiency of the new department. They will investigate and solve problems encountered by the F4D in operational squadrons, prepare service changes, and provide support for parts procurement to keep Navy and Marine Skyrays in flying condition.

An aviation era came to an end this year when the last AD Skyraider was delivered to the Navy. It was the 3,180th produced since March 18, 1945, by the El Segundo division. There have been seven series from AD-1 through AD-7, and a total of 28 model designations.

Since the Torrance location was activated in the Spring of 1952, parts have been fabricated for the AD-4, the AD-5, the AD-6, and the AD-7. They were shipped to outside manufacturers who produced the basic structures of the aircraft. After being returned to Torrance, the structures received their major installations and were delivered to El Segundo for final assembly.

The Navy utilizes the versatile AD's for almost every type of mission, from an ambulance plane to an atomic bomber. Many of them will be in active fleet service for many years to come, performing important missions for the U. S. Navy.

Personnel who had been working on the Skyraiders at B-6 were transferred to F4D Skyray departments. A program of spare parts' procurement continues, however, which runs into millions of dollars each year to keep the Skyraiders in operational condition throughout the world.

The Bureau of Aeronautics has made prime airframe contractors such as Douglas responsible not only for the delivery of aircraft but also spare parts. No aircraft can be delivered to the Fleet without spares, special support equip-



SUPERSONIC SKYRAY

Torrance facility of Douglas Aircraft's El Segundo division has over 9200 employees who receive approximately one million dollars in their weekly paychecks. Marine all-weather Fighter Squadron 115, based at El Toro Marine Corps Air Station, Calif., is the first Navy or Marine squadron to receive the supersonic Skyray produced at Douglas Aircraft's Torrance facility.

ment, and catalogs. This involves a vast quantity of parts ranging from a whole wing section to the smallest bolt, many of them produced at B-6.

### 25th Anniversary

This year the El Segundo Division, of which Torrance is an integral part, observes its 25th anniversary of aeronautical progress. The more than 20,000 airplanes produced from El Segundo designs are a monument to the prominent part played by the division in the growth of powered flight.

Torrance, also, observes an anniversary this month. It was in April, 1952, when the rehabilitation of the deserted buildings, formerly occupied by the Aluminum Company of America, got underway.

A master plan devised by the Navy-Douglas team transformed the abandoned aluminum plant into one of the nation's most modern manufacturing facilities.

Only 38 days after the conversion was started five years ago, production assemblies were rolling out.

The rehabilitation of the empty buildings on the 174 acre site was completed 12 to 14 months earlier than if a new facility had been constructed. This saved 40 percent in construction costs.

Today, 1,672,082 square feet of covered floor-space are available for manufacturing the Skyray, and numerous other projects.

Location B-6 has a weekly payroll averaging one million dollars for its 9200 employees. It is proud to be one of the major contributors to the economic growth of the Torrance industrial area.



TO BETTER SERVE  
"ALL - AMERICA"  
TORRANCE!

This is our constant aim—and throughout the years, as Torrance grew to its present stature — an aim we have kept constantly in mind.

In 1950, we were serving 4,649 consumers — today, 15,000. Looking ahead to the assured growth of the future, plans for numerous additional transmission water mains and millions of gallons storage facilities have already been inaugurated —

TO BETTER SERVE "ALL-AMERICA" TORRANCE

# TORRANCE MUNICIPAL WATER DISTRICT NO. 3

## CITY HAS OWN BUS SERVICE

An average of 2100 passengers per day are carried on the regular bus routes by the Torrance Municipal Bus lines, which began operating between Torrance and Los Angeles in 1941, a distance of 17.5 miles.

During the next two years the line was extended to Waverly and the Harbor Hills area.

Service was started in 1947 between the city of Hawthorne and Long Beach via North Torrance. Service between Redondo Beach Blvd. and Broadway in Hawthorne has been discontinued and now terminates at Redondo Beach Blvd. and Hawthorne Ave.

So stated Marshall Chamberlain, superintendent of buses.

Service between Torrance and Los Angeles via North Torrance was inaugurated in January, 1953, all bus routes consisting of 80 one-way miles.

A zone fare system is used, minimum fare being 15 cents and maximum being 45 cents.

School children under 21 years old ride for half fare by means of a 30-ride commuters' book.

The line now has 15 buses, 22 operators and 18 shop employees. The shop services all city equipment, with the exception of police and fire equipment.

The bus fleet consists of eight 45-passenger Diesels, anywhere from six months to six years old. Five older buses will be replaced as time and money permit, it was stated.

Charter service is available in addition to regular passenger service, Chamberlain said.



SERVING SOUTHERN CALIFORNIA  
**OVER FIFTY YEARS**

A HISTORY of Warren Brothers Company, parent company of Warren Southwest Inc., would go back to the pioneer days of roofing and the very beginning of the asphalt industry. Many pages could be written listing the new products, new methods, discoveries and of the tremendous undertakings in the construction industry linked directly with Warren Brothers. The ambition and pioneering spirit of this family drove them and others to follow over seemingly insurmountable obstacles to establish for themselves a reserved seat among the "Greats" of America's Builders.

Today Warren Brothers, with general headquarters in Cambridge, Mass., controls some fifteen subsidiary companies throughout the United States and Canada, one of which is Warren Southwest, Inc. operating in Southern California. Needless to say, asphalt has played a very significant role in the history of Southern California. In the days of the Spanish land grants the local land-owners were given permission to remove tar from the La Brea Tar Pits to water-proof the roofs of their adobe houses.

- 1 Laying surface on Ocean Avenue near San Vicente Road, Santa Monica, January, 1916.
- 2 Seventh Street, looking east from Utah Street, Los Angeles. Surface laid in 1919.
- 3 Looking east on Torrance Boulevard, Torrance. Street work completed 1955.
- 4 Looking south on Crenshaw Boulevard, Torrance. Street work completed 1956.

**Asphalt and Paving Division**  
Construction of Highways, Streets and Airports.

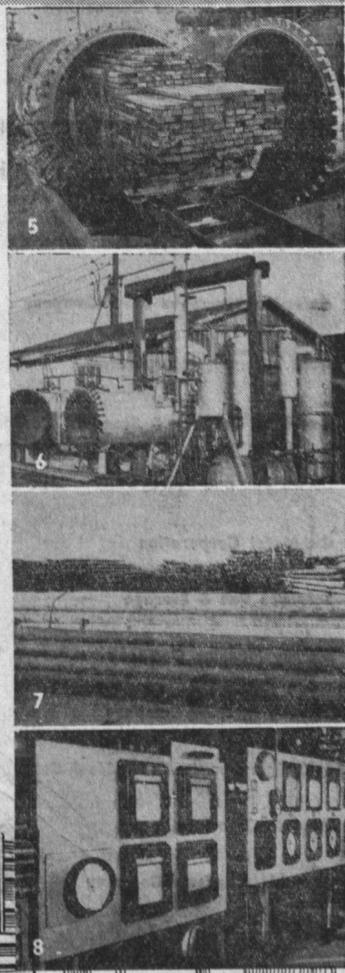
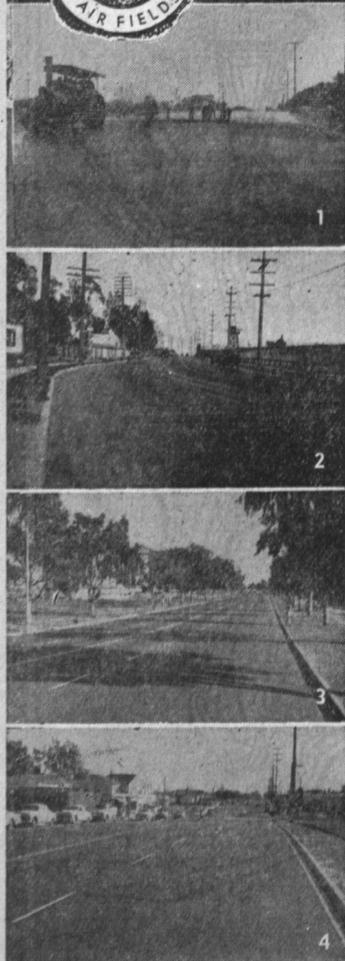
**Wood Preserving Division**  
Chemically preserved forest products to protect against decay and termites.

Warren Southwest, Inc., at present operates as two divisions; namely, the Asphalt and Paving Division with plants in Torrance and at Duarte, Calif., and the Wood Preserving Division at Wilmington, Calif. Persons who are in a great measure responsible for the continuing success of Warren Southwest are Robert A. Bartley, President; Jack S. Weber, Vice President and their respective staffs.

The Wood Preserving Plant consists of three large cylinders or retorts with a maximum cylinder length of 104 feet. This division furnishes and pressure treats such wood items as poles, piling, timbers, railroad ties, house lumber and other forest products where long lasting protection is needed against wood's natural enemies, decay and termites. Creosote, pentachlorophenol and the Warren Blue Salt (Chromated Zinc Arsenate) are offered as standard treatments and are approved and accepted by Federal, State, County and local governmental specifying agencies.

The Asphalt and Paving Division has completed engineering contracting projects on local city, county and state work.

- 5 A "charge" of chemically preserved lumber being withdrawn from the cylinder.
- 6 Small experimental cylinder used for research work in wood preservation.
- 7 Warren Southwest's pole yard showing both creosote treated and untreated poles and piling.
- 8 Control panel showing temperature, pressure and vacuum gauges which assure quality production.



**WARREN Southwest INC.**  
ASPHALT PAVING — TORRANCE • DUARTE • WOOD PRESERVING — WILMINGTON